

Amendments to the Claims:

Claims 1-4. (Cancelled)

5. (Currently Amended) A transport system for transporting and handling microtiter plater, for use in high throughput screening, diagnosis and/or combinatorial chemistry comprising:
modules with devices for at least one or more of the following:
preparing specimens, introducing specimens, optical readout, plate storage, and devices for further processing steps or readout steps;
at least one central transport system; and
an inter-modular internal transport system for transporting the microtiter plates between said different devices and said at least one central transport system for asynchronous plate transfer between individual modules via input and output buffers,
wherein the input and output buffers are provided within the individual modules.

6. (Cancelled)

7. (Currently Amended) The transport system according to claim 5 [[6]], wherein the microtiter plates are transported by means of revolving tables with sliding units.

8. (Previously Presented) The transport system according to claim 5, wherein at least one of the modules is connected with a local computer with externally standardized interface and the transport and/or processing and/or loading and/or optical readout are/is controlled by a master computer via these interfaces.